Bladder tumor in Tikrit teaching hospital: a review of 175 cases

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Abstract

A retrospective study involving 175 case of histopathologically diagnosed bladder tumor admitted to Tikrit Teaching hospital between January 1995 and December 2005. There were 136 male patients and 39 female Patients. The percentage of those patient from all the tumor patient – excluding hematological tumor - was found to be 14%. Bladder tumor was the most common solid tumor in male while it was the fourth in female. Patient over 80 years old were most commonly affected by bladder tumor (57 case ) while those below 40 years old were the least affected and there was no case reported with age below 20. Ninety seven percent of patients harbored the transitional cell carcinoma while there was two cases of adenocarcinoma 1% and three case of squamous cell carcinoma 2%. Hematuria was the presenting symptom in 85% of these patient, other symptoms include Lower Urinary Tract Symptoms LUTS (frequency, urgency, and dysuria), and symptoms of prostatism. This study aimed to define the epidemiologic features of bladder tumors in Tikrit Teaching hospital.

Bladder tumor is one of the important tumors that could affect people so we urge fore more intention regarding the records and patient follow up and to isolate the record of malignancy in a separate unit in the hospital.

Key word : Bladder tumor , Epidemiology.

Introduction

The incidence of bladder cancer continues to increase, with an estimated 53,000 new cases diagnosed in the United States in 1996(1) and It is approximately 55,000 new cases of bladder cancer will be diagnosed in 2000 and that approximately 12,500 patients will die from this disease(2). Ninety percent of these cases are transitional cell carcinomas. The male-to-female ratio is 3:1(1). It is an extremely important disease, ranking fourth in incidence among all cancers in the United States in men and ninth in the United States in women(3), and it is the fourth most frequently diagnosed cancer in Canadian men, with an annual rate of 23 per 100,000 Canadian men(4).

A number of etiological factors are associated with the development of bladder cancer, but in industrialized countries, cigarette smoking is the most important. Specific chemicals have also been identified as causing bladder cancer, as have a number of occupational exposures to less well-defined specific agents.(1) Environmental, nutritional and hereditary factors are known to influence the epidemiology and the course of transitional cell carcinoma of the bladder (TCCB) and hence attribute to major ethnic and national differences(5).

African Americans were diagnosed with more aggressive and more advanced tumors. Adjusted multivariable models demonstrated a survival advantage for Caucasians, with African-American race being an independent predictor of poor survival, especially when diagnosed in the Atlanta metropolitan area. Racial disparity continues to exist in bladder cancer presentation and survival in the US(6).

Bladder cancer produces clinical symptoms, the first of which usually remains fixed as a definitive episode in the life of a patient. Urologic consultation is usually sought promptly thereafter. Kretschmer reported that in none of 902 consecutive patients diagnosed with bladder cancer was a tumor found before symptoms occurred(7).
Patients and methods

A retrospective study involving a review and analysis of the medical records of all patients with a histopathologically proved diagnosis of bladder tumor over the period of January 1995 to December 2005. The number of the patients was 175 who were admitted to Tikrit Teaching Hospital during the above period. The records analysis involve annual and overall age and sex distribution, male to female ratio. The ranking of bladder tumor in respect to other tumors in Tikrit Teaching Hospital and the percent of this tumor from the over all patient number with other malignant diseases were taken into account.

Results

Bladder tumor was the most commonly seen solid tumor in Tikrit teaching hospital, as well as it is the most common tumor in male and the fourth tumor in female after breast, uterus and renal tumors. Bladder tumor in both sexes accounts about 14% of patients with the solid tumors in Tikrit teaching hospital table (1).

Table (1) also shows that male : female ratio was 3.5:1 and the female patients occupying 22% of the total bladder tumors patients. These cases represents 8% of tumors affecting female, while bladder tumor in male account for 12% of solid tumors affecting male.

Patient over 80 years old( from both sexes) were most commonly affected by bladder tumor (57 case ).The most common age group affected in males was 60-80 years while the most common age group affected in females was 40-60 years old, while no cases was recorded below 20 years old As shown in Figure (1).

Figure (2) shows the number of patients of both sexes per each year for the period of 1995-2005, the highest number was in 1995 for males 22 cases and those for females was in 2000 and 2004 with 20 cases for each.

Figure (3) shows the presenting symptoms of patients with bladder tumor Hematuria was the most common presenting symptom accounting for 85% of cases and Lower Urinary Tract Symptoms (LUTS) 25%.

Figure (4) shows the histopathological pictures of bladder tumor in Tikrit teaching hospital transitional cell carcinoma was the most common bladder tumor accounting for 97% of histopathologically diagnosed tumor while squamous cell carcinoma account for 2% of all cases.

Discussion

Ross says that bladder cancer is an extremely important disease, ranking fourth in incidence among all cancers in the United States in men and ninth in the United States in women. ( ). Male : female ratio was 3.5:1, and the female patients occupying 22% of the total bladder tumors patients. This was comparable to Johansson, and Cohen results who found that male-to-female ratio is 3:1(1)

These cases represents 8% of tumors affecting female, while bladder tumor in male account for 12% of solid tumors affecting male. Men have a risk of bladder cancer that is approximately four times higher than that of women( ). The most common age group affected in males was 60-80 years while the most common age group affected in females was 40-60 years old, while no cases was recorded below 20 years old As shown in Figure (1).

Figure 3 shows the presenting symptoms of patients with bladder tumor Hematuria was the most common presenting symptom accounting for 8% of cases, while irritative voiding symptoms account for 20% of the presenting symptoms. Fitzpatrick found that 80% of patients present with some form of hematuria which may be visible (gross) or discovered on routine urinalysis (microscopic) ( ). Irritative bladder or voiding symptoms are the second most common form of presentation seen in approximately 25% of patients with bladder cancer. Such voiding symptoms may include urinary urgency, frequency, and dysuria and are usually seen in patients with CIS or with an invasive bladder tumor (9,10).

Figure 4 shows the histopathological pictures of bladder tumor in Tikrit teaching hospital transitional cell carcinoma was the most common bladder tumor accounting for 97% of histopathologically diagnosed tumor. Other less frequent types is squamous cell carcinoma accounting for 2% of all cases,
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Bladder tumor in Tikrit teaching hospital is a review of 175 cases. Ninety percent of the bladder tumor cases are transitional cell carcinomas (1). Pure squamous carcinomas are the second most common histologic type, representing between 5% and 7% of bladder carcinomas in the United States and 1% to 3% of bladder carcinomas in the British Isles (11,12). In regions where S. haematobium is prevalent, squamous carcinomas represent the most common form of bladder cancer (13,14). Primary adenocarcinoma of the bladder, the third most common epithelial tumor, accounts for 0.5% to 2% of bladder carcinomas (15,16).

References:

Table (1): bladder tumor out of total number of other tumors affecting both male and female in Tikrit teaching hospital 1995-2005.

<table>
<thead>
<tr>
<th></th>
<th>Bladder tumor</th>
<th>Other tumors*</th>
<th>total</th>
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<tbody>
<tr>
<td></td>
<td>No. (%) **</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Male</td>
<td>136(78%)</td>
<td>12</td>
<td>691</td>
</tr>
<tr>
<td>Female</td>
<td>39(22%)</td>
<td>8</td>
<td>396</td>
</tr>
<tr>
<td>Total</td>
<td>175(100%)</td>
<td>14</td>
<td>1087</td>
</tr>
</tbody>
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*Excluding hematological tumors
** the percentage out of total number of bladder tumors
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$r = \text{male: female ratio is 3.5:1}$

**Figure (1):** Age distribution of patients with bladder tumors in Tikrit teaching hospital for the period 1995-2005

**Figure (2):** Number of patients with bladder tumors per year in Tikrit teaching hospital for the period 1995-2005

**Figure 3:** Presenting symptoms of patients with bladder tumor.
**Figure 4:** The histopathological pictures of bladder tumor in Tikrit teaching hospital.